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Shoalhaven City Council Weed Management Plan – Fireweed Common name: Fireweed Botanic name: Senecio madagascariensis South East Regional Priority Weed Objective - Containment Exclusion Zone: The plant should be eradicated from the land and the land kept free of the plant. Management Zone: Land managers should mitigate the risk of new weeds being introduced to their land.

**Fireweed** is a serious pasture weed of the Shoalhaven. It is able to grow on most soil types and in all aspects. It forms a persistent seedbank if not controlled before it flowers and can rapidly take over heavily grazed and neglected pastures, competing strongly with existing pasture plants. It seeds prolifically and grows to maturity quickly. Density is influenced by groundcover and competition, especially in autumn. Fireweed contains pyrrolizidine alkaloids that are toxic to livestock and cause liver damage. Young or hungry stock or new stock not previously exposed to fireweed are the most at risk of poisoning. All parts of the plant at all stages of growth are toxic. Hay, silage or grain that is contaminated with fireweed plants or their seeds can also be toxic.

## **General Biosecurity Duty**

All plants are regulated with a **general biosecurity duty** to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable

**Exclusion Zone:** In the parishes of Broughton, Bugong, Cambewarra, Moollatoo and Wallaya and in those parts of the parishes of Burrawang and Yarrawa that are within the local government area of Shoalhaven City Council and that part of the local government area that is south of 35 11'42" S (A line through the Bendalong Rd and Princes Highway intersection), the plant is eradicated from the land, or if that is not practicable then as much of the plant as is practicable is destroyed and the spread of any remaining plant is suppressed.

The **Biosecurity Act 2015** and the **Biosecurity Regulation 2017** set out a range of penalties for non-compliance with the provisions of the legislation. Penalties range from \$1,000.00 on the spot fines, through to court imposed penalties of up to a maximum of \$220,000 for individuals or \$440,000 for corporations for failing to discharge a biosecurity duty. If an offence is proven to have been committed negligently, the court may impose a penalty of a maximum of \$1,100,000 for an individual and \$2,200,000 for a corporation.

**Management Zone:** Land managers should mitigate the risk of new weeds being introduced to their land.





## Annual life cycle and chemical control calendar

January	February	March	April	May	June	July	August	September	October	November	December
Plants dead/dormant		Germination and seedling establishment			Growth and flowering		Flowering and seed set Plants de		Plants dead	l/dormant	
Avoid use of herbicide		Bromoxynil 200g/L (Bromicide)			Bromoxynil 200g/L (Bromicide)			Picloram 100 g/L + Triclopyr 300 g/L +			Avoid use
during this period		Bromoxynil 250g/LDiflufenican 25g/L (Jaguar) Metsulfuron methyl (Brushoff, etc)			Metsulfuron methyl (Brushoff, etc)			Aminopyralid 8 g/L (Grazon Extra®) Metsulfuron methyl (Brushoff, etc) Fluroxypyr 140 g/L + Aminopyralid 10 g/L			of herbicide during this period

Herbicides are a safe and effective method of control as part of an integrated fireweed management plan. Use of herbicides does not stop the need to maintain or establish a competitive pasture. The aim of herbicide treatment is to minimise the establishment of a large population of fireweed in autumn. The longer that fireweed plants live, the more seed they produce, and large amounts of seed lead to heavy infestations. A well-timed herbicide application can be very effective in reducing the density of fireweed infestation for more than a year.

ALWAYS READ THE LABEL AND USE CHEMICALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS

Refer to NSW DPI Weedwise website: <a href="https://weeds.dpi.nsw.gov.au/">https://weeds.dpi.nsw.gov.au/</a>Fireweed page:<a href="https://weeds.dpi.nsw.gov.au/">https://weeds.dpi.nsw.gov.au/</a>

Hand weeding (removing individual plants) is appropriate when infestations are very small or isolated, and can be a useful form of control in environmental areas. Wear gloves when hand weeding. Even after being removed from the soil, fireweed is still toxic to stock, and if it is flowering, it can still produce viable seed. All parts of the plant, especially the flowers, should be bagged and destroyed appropriately.

**Cultivation in arable land:** For arable areas, cultivation followed by a cropping program with a forage cereal such as oats can be effective as part of a pasture improvement program. Cultivation in March and April can stimulate a large proportion of the seedbank to germinate. These seedlings can then be controlled with a knockdown herbicide or further cultivation before sowing the forage crop. (Avoid over-cultivation, which increases the risk of erosion.)

Slashing/mulching/mowing: Repeated cutting, typically at less than six week intervals, can reduce, but not eliminate, fireweed production and seeding. However, while it controls fireweed, this technique is also damaging to the pasture, and should only be considered where the pasture will rapidly recover and outcompete any seedlings. Fireweed should not be slashed in late spring or when more than 25% of plants present are still flowering, because mature plants that might otherwise have died may be encouraged to re-shoot and carry on into a second season.

Useful references: NSW Weedwise: <u>http://weeds.dpi.nsw.gov.au/WeedBiosecurities?Areald=114</u> *Biosecurity Act 2015:* <u>https://www.legislation.nsw.gov.au/acts/2015-24.pdf</u> *Biosecurity Regulation 2017:* <u>https://www.legislation.nsw.gov.au/regulations/2017-232.pdf</u> South East Regional Strategic Weed Management Plan: <u>http://southeast.lls.nsw.gov.au/</u><u>data/assets/pdf\_file/0006/722706/South-East-Regional-Weed-Mgmt-Plan.pdf</u>

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