

Crofton Weed

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INTRODUCTION

Crofton weed is a rapid-spreading weed that has become a nuisance in many areas along the eastern coast of Australia. It is particularly invasive on cleared land that is not grazed, such as public reserves, and causes particular problems for horse owners.

A member of the Asteraceae or daisy family, Crofton weed (*Ageratina adenophora*), is a native of Mexico. It is present as a weed in India, Sri Lanka, the Canary Islands, Jamaica, mainland United States, Hawaii, Fiji, New Zealand and Australia.

Since its escape from ornamental cultivation in Australia around 1900, it has become widespread in Queensland coastal areas and on the New South Wales North Coast, and as far south as Wollongong. Isolated infestations also occur on the northern and central tablelands.

Crofton weed is a declared noxious plant in 39 local government areas of coastal New South Wales, most lying between Gosford and the Queensland border.

The weed has been present in the Sydney region for more than 30 years and has spread rapidly in this area since the early 1970s. It is

Crofton weed (*Ageratina adenophora*)



Photo: BOB TROUNCE

now a problem weed, especially on small farms where horses are kept.

Crofton weed and its close relative, mistflower (*A. riparia*), infest large areas of the coast, especially steep, well-drained land where annual rainfall is more than 1500 mm and where there are few or no frosts.

DESCRIPTION

Crofton weed is an erect, perennial shrub with numerous chocolate-brown woody stems emanating from an underground crown and reaching a height of 1–2 m. It has broad, slightly crinkled, trowel-shaped, toothed leaves with chocolate-coloured petioles. It produces white flowers in spring.

Crofton weed and mistflower are sometimes mistaken for each other. Table 1 distinguishes between the two species.

WHY IT IS A WEED

It spreads rapidly

Mature Crofton weed plants can produce between 10 000 and 100 000 seeds per year. Seeds are very light (25 000 seeds/g) and are windborne over long distances to invade previously non-infested areas.

The seeds require light to stimulate germination so that invasion commonly takes place on bare, disturbed sites and only rarely on heavily vegetated areas.

Crofton weed flowers and mature seed heads. The mature seed heads are crowded with fertile seed.

DISCLAIMER

The information contained in this publication is based on knowledge and understanding at the time of writing (February 2003). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of New South Wales Department of Agriculture or the user's independent adviser.

Places where Crofton weed is commonly found include:

- land cleared but not revegetated with pasture
- roadsides and waste areas
- ungrazed small holdings
- State forests
- National parks
- abandoned banana plantations
- fencelines.

Once established, seedlings tolerate shade and grow rapidly. In this way, small infestations of Crofton weed rapidly increase in size unless controlled.

Crofton weed reduces the ecological value of bush land, lowers crop yields and reduces the carrying capacity of grazing land.

The weed spread rapidly during the 1940s and 1950s and it was reported that in some areas



dairy farmers and banana growers abandoned their holdings!

The area of Crofton weed infestation has now been substantially reduced through control strategies.

It is poisonous to horses

Horses may preferentially graze the plant even when ample feed is available. Access to Crofton weed for as little as eight weeks can cause sickness.

The first sign of Crofton weed poisoning is coughing, made more pronounced by exercise. If horses are not removed from infested areas, further lung and possible heart damage occurs, leading to shortness of breath even when at rest. Death from respiratory failure is the eventual result, with affected horses often suddenly collapsing and dying during work.

Treatment of Crofton weed poisoning is unlikely to reverse the damage, so early detection of poisoning and removal from the weed infestation is essential. If you suspect poisoning, seek veterinary advice. Poisoned horses may never again be capable of work.

It is possible that Crofton weed is at its most poisonous during or soon after flowering. Pollen inhalation could be a factor in poisoning.

It is a weed of non-agricultural areas

Crofton weed is an aggressive invader of public amenity land such as State forests, national parks and nature reserves, as well as public utility easements such as railway embankments.

CONTROL

Crofton weed can be controlled using a combination of methods, in conjunction with pasture and grazing management practices, aimed at creating an unfavourable environment for weed invasion.

Mechanical control

Small areas of scattered plants can be dug out with a mattock. Crowns must be removed to prevent regrowth. Slashing is often used to control heavy infestations on accessible land. Regular slashing will reduce flowering and seed-set, thus reducing spread by seeds. It will also reduce the vigour and density of Crofton weed infestations and, combined with competitive pastures, will eventually bring them under control. The slashed and dried plant, however, is

Table 1 Comparison between Crofton weed and mistflower

Common name	Crofton weed	Mistflower
Botanical name	<i>Ageratina adenophora</i>	<i>A. riparia</i>
Growth habit	Erect stems up to 2m tall	Sprawling stems prostrate, to 30cm tall
Leaf shape	Trowel-shaped broad-toothed	Narrow, elongated, toothed
Flowers	The plants have similar flowers	



Above: The leaves of the Crofton weed plant are trowel-shaped. Below: A cut stem of the plant showing a gall containing the biological control agent *Procecidochares utilis*.



Photo: BOB TROUNCE

still attractive and toxic to horses. Take care to keep horses away until the plant has been completely removed from the paddock.

Chemical control

In New South Wales, several chemicals are registered for the control of Crofton weed (see *Noxious and Environmental Weed Control Handbook* and *Weed Control in Lucerne & Pastures*). For further advice on herbicides, consult the nearest NSW Agriculture office or your shire council weeds officer.

Chemical treatment appears to work most effectively during late summer and autumn. When spraying Crofton weed with herbicides it is important to ensure that spray does not drift onto desirable plants and to maintain operator safety.

Instructions on operator safety and application methods are on the container labels: you must read and understand these before using the chemical.

A combination of slashing and chemical application is often used to eradicate Crofton weed. After slashing, the weed is allowed to regrow from the crown to a height of 15–40 cm and then sprayed with herbicide. Combined with the introduction of competitive species, this strategy restores the productivity of infested land.

Grazing management

Well-managed, competitive pastures are important in preventing weed invasion and this principle also applies to Crofton weed. Dense pasture swards suppress seed germination and livestock eat young seedlings with the balance of their feed. Therefore, fewer plants grow to maturity.

Goats are known to eat Crofton weed. The degree of weed control by goats depends on the stocking rate, weed density and the availability of other suitable feed. Using goats to help control widespread infestations may be worth considering, although some knowledge of goat husbandry and fencing is necessary. The same group of goats should be used for only one or two seasons to avoid risk of chronic health problems.

Biological control

The Diptera insect *Proceidochares utilis* was released in 1953 for the biological control of Crofton weed. It initially established readily and spread rapidly throughout the range of the weed. However, the insect itself was parasitised by a native insect and its effect is consequently patchy. Visible signs of insect infestation are galls or swellings about 1cm

ALWAYS READ THE LABEL

Users of agricultural or veterinary chemical products *must always* read the label and any permit, before using the product, and strictly comply with the directions on the label and the conditions of any permit. Users are not absolved from compliance with the directions on the label or the conditions of the permit by reason of any statement made or not made in this publication.

long in the stems of the plant. These galls contain the insect larvae. Galled stems usually die, but the level of galling is usually too low for any substantial effect.

A fungus that was accidentally introduced, *Cercospora eupatorii*, and a native crown-boring insect (*Dibammus argentatus*) also attack Crofton weed. The combined effect of these predators and the Diptera bug reduces the rate of spread of the weed. High levels of control though have never been obtained from biological control of Crofton weed so it should never be solely relied upon.

STATUTORY RESPONSIBILITIES OF LANDOWNERS

Crofton weed is a declared noxious plant (*Noxious Weeds Act 1993*) in almost all coastal local government areas between Gosford and the Queensland border and must be controlled in those areas. Local councils are responsible under the Act for ensuring that the noxious plant provisions are enforced.

Responsibility for control of noxious plants on private land rests with the owner or occupier of the land. Failure to control noxious plants can result in a notice being served, court action and a fine. Alternatively, the council may legally enter the land and eradicate the plants—charging the cost to the landholder.

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