






# MIMOSA

## *Mimosa pigra*

HABIT	STEMS & BRANCHES	LEAVES	FLOWERS	FRUIT & SEED
				
Single prickly stem when young, and when mature is a branched prickly bush reaching a height of up to 6m.	The stem is greenish in young plants but becomes woody as the plant matures. Stem prickles are 5 - 10mm long. The plant forms aerial roots when it is growing in standing water.	The fern-like green leaves fold together at night, when touched or when water stressed. They are made up of many fine leaflets and occur in opposite pairs along branches.	Flower heads are round fluffy balls consisting of up to 100 small pink to mauve coloured flowers. Each flower head produces a cluster of 10 - 20 seed pods.	Seed pods are 6 - 8cm long. When mature the pods turn brown and break into segments. Seeds within the pods are oblong, brown or green and flattened.

Mimosa is a declared weed in accordance with the *Weeds Management Act* and is a Weed of National Significance in Australia. The class of declaration varies according to the location in the Northern Territory.

- Class A – to be eradicated (all areas of the Northern Territory except where it is classified as Class B)
- Class B – growth and spread to be controlled (in the area roughly described as west of the Kakadu National Park, north of Adelaide River township, north-west of the Daly River/Port Keats road and north-east of the Moyle river)
- Class C – prevent new entry (all areas of the Northern Territory).

In all instances Class A and B areas are also classified as Class C. This results in the mixed declaration classes A/C and B/C. Areas identified as Class A/C (the eradication zone) generally have lower density infestations which are considered to have a high feasibility of eradication and control. Areas identified as B/C (the management zone) generally have higher density infestations which have a lower feasibility of eradication or control.

### The problem

Mimosa is a Weed of National Significance. It is regarded as one of the worst weeds in Australia because of its invasiveness, potential for spread, and economic and environmental impacts. Mimosa forms dense stands that can replace all native vegetation on the ecologically and economically valuable wetlands of the Top End of northern Australia.

Mimosa invasion threatens the production, cultural and conservation values of wetlands, and reduces the scope for their utilisation.

Pastoralists are affected because the inedible and thorny mimosa smothers and replaces grasslands, blocks access to stock watering points and hinders mustering. Additionally, the harvesting of bush foods by Indigenous people is hampered by mimosa. In environmental terms, nationally and internationally significant wetlands are threatened by mimosa, which reduces the biodiversity of plant and animal life on the floodplains by out competing native plants and reducing available habitat for animals.

## **Habitat and distribution**

Mimosa is a native of Mexico, Central and South America. It is believed to have been introduced to the Northern Territory before the 1890s. Until the late 1950s mimosa populations seemed stable and not very invasive, as the plant had not reached its favoured habitat - the open floodplains. Since then however, mimosa has spread rapidly, particularly since the mid 1970s. It is now one of the worst weeds of the Top End, infesting land from near the Fitzmaurice River in the west and extending east to include the Daly, Reynolds, Finniss, Adelaide, Mary, East and South Alligator Rivers systems. There are satellite infestations found on the Arafura Swamp in Arnhem Land, Melville Island, Croker Island and the Phelp River in south east Arnhem Land. It has the potential to colonise all the wetlands of tropical Australia.

## **Preventing mimosa spread**

- Map infestations before commencing control to enable the development of a coordinated management strategy
- control minor and upstream infestations, isolated trees or seedlings first
- prioritise control along drainage lines, creeks and dams to reduce spread
- incorporate fencing to exclude stock and feral animals where mature pods are present
- quarantine stock when moving from infested paddocks to clean paddocks (seeds may take up to 6 days to pass through an animal)
- maintain a healthy and competitive pasture through managing the impact of grazing, feral animals and fire.

The spread of mimosa must be controlled. You can assist by not removing soil or sand from areas where infestations are known to occur and by not driving off-road through infested areas. Machinery used in mimosa infested areas must be thoroughly cleaned before moving on to clean areas. Small mimosa plants can be killed by hand pulling or by grubbing them out with a mattock, making sure to leave the roots clear of the soil. Larger infestations should be treated with a registered herbicide.

Regular follow-up applications of herbicide are required as significant regrowth can occur. This is due to the reserve of mimosa seeds in the soil which can survive for long periods. The residue should be mechanically cleared and burnt, and pastures planted to help control seedlings. Pastures should not be overgrazed as this may allow for re-invasion by mimosa. Alternatively the area cleared can be revegetated with native flora.

## **Pasture management**

Avoid pasture disturbance around mimosa infestations to limit mimosa seed germination and also in mimosa free areas to limit mimosa establishment. Pasture disturbance includes any activity that results in bare ground devoid of vegetation, namely:

1. fire
2. heavy grazing, particularly around stock watering points or nutrient supplement sites
3. feral animal activity such as pigs that dig up ground while foraging, and feral buffalo that damage vegetation at wallows and water holes
4. pastoral infrastructure development such as grading fence lines, fire breaks and roadways.

## **Controlling mimosa**

### **Biological control**

Biological control of *Mimosa pigra* first commenced in 1979 with the first agent released in 1983. By 2009, 13 insects and 2 fungi had been released in an attempt to bring mimosa under control. The combined effect of these agents has greatly reduced the amount of seed that mimosa produces, therefore helping to reduce the rate of spread of this plant.

### **Non-chemical control**

Hand grub single plants or small outbreaks, ensuring the removal of as much of the root system as possible. Bulldozers can clear debris post-chemical control and fire can be used to kill surface seed or at least break the dormancy stage.

A range of chemical, biological and mechanical control options are suitable for mimosa control. The table below shows chemical application options.

## Chemical control

Herbicide and Active Constituents	Aerial Application	Ground Control	Wetting Agent	Carrier
<b>Tebuthiuron</b> Various trade names including: Graslan	5-10 kg / Ha	1g / m <sup>2</sup>	No	No
<b>Fluroxypyr 333 g/L</b> Starane® Advanced	1.8 L / Ha	180 ml / 100 L Foliar application 1:60 basal bark or cut stump (17 ml / L)	Uptake 500 ml / 100 L No	Water Diesel
<b>Metsulfuron methyl</b> Various trade names including: Brushoff®	60 g / Ha (100 g / 100 L)	No	Activator 100 ml / 100 L	Water
<b>Dicamba</b> Various trade names including: Kamba® 500 herbicide and Banvel	6 L / Ha	1L / 100 L	LI 700 100 ml / 100 L	Water
<b>Glyphosate</b> Various trade names including: Glyphosate CT	No	Neat or 25 ml / L cut stump	No	Water

### Optimum treatment times – Darker colours represent preferred months for foliar treatment

Treatment	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Foliar Spray	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Basal Bark	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Pellet/Granular*	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec

\* if fire is imminent - do not use granulat herbicide

## Disclaimer

In the Northern Territory, a registered product must only be used in situations consistent to those appearing on the label, unless authorised under a permit; and a person:

- must not have in their possession or use a chemical product unless the product is registered in Australia (exemptions apply)
- may use a registered product at a concentration, rate or frequency lower than that specified on the label unless this is specifically prohibited on the label. This does not apply to herbicide use occurring under an APVMA permit
- may use a registered product to control a pest not specified on the label provided the pest is in a situation that is on the label and use on that pest is not specifically prohibited on the label
- may also use a registered product using a method not specified on the label unless this is specifically prohibited on 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 any conditions of any permit. Users are not absolved from compliance with the directions on the label or conditions of the permit by reason of any statement made in or omission from this publication.

## Further information

Weed Management Officers from the Weed Management Branch can provide advice on all aspects of weed management including control techniques, biological control, legislative responsibilities, policy advice, monitoring and reporting and regional planning.

For further information on weed management planning, integrated control, herbicide application techniques and monitoring please refer to the [NT Weed Management Handbook](#). The Mimosa Weed Management Plan can be found at [www.nt.gov.au/environment/weeds/weed-management-planning](http://www.nt.gov.au/environment/weeds/weed-management-planning).