

Mission grass, perennial

Cenchrus polystachios

HABIT	STEMS & BRANCHES	LEAVES	FLOWER SPIKE	SEED HEAD
				
Mission grass is a large, tough, perennial grass. The grass forms a loose clump to 3m high.	The stems are slender and fairly straight, sometimes rooting at the lower nodes.	The leaf blades are hairy and elongated to 45cm long and up to 18mm wide. Can have a red-purplish colour particularly when stressed. Will stay green long after native grasses have dried.	Flower heads appear in the early dry season and are a dense spike, 5 - 26cm long and 1.3 - 2.6cm wide. Generally will have a golden colour.	Seeds are hairy on the lower half making them ideal for dispersal by wind, and on animals and vehicles. Flowering to seed maturity can occur in 14 days. Closely packed seeds on spike.

Perennial mission grass is a declared weed is declared a Class B (growth and spread to be controlled) and Class C (not to be introduced) weed in the Northern Territory in accordance with the *Weeds Management Act*.

The problem

Introduced as a pasture species and rarely establishing outside the tropics, *Cenchrus polystachios* is a perennial grass which readily competes with native annual species and occupies disturbed areas including roadsides. By remaining green until the late dry season, this grass provides fuel for much hotter fires later in the year. It is also encouraged by repeated burning. Fuel load from this species is often 3–5 times that of neighbouring areas free of mission grass. This fuel load results in more intense fires and has a detrimental impact on other native species as well as on property and horticulture.

Habitat and distribution

Mission grass is native to tropical Africa and rarely extends beyond latitude 23°N and 23°S. It is now considered a weed of several countries including India, Thailand and Fiji. Mission grass was introduced into Australia for testing as a pasture species, and was first noticed in the Darwin area in the early 1970s. It is now widely established in the Top End of the NT in both Katherine and Darwin regions. Management efforts are currently focussed on containment and prevention of spread where the species is well established, whilst in areas affected by minor infestations the focus is prevention of establishment through active eradication programs.

Mission grass is closely related to another introduced species *Cenchrus pedicellatus* which differs by being an annual grass which usually grows to a height of 1m with cream to pale purple seed heads.

Preventing mission grass spread

Mission grass is highly invasive, produces vast quantities of seed and has the capacity to spread into both disturbed and undisturbed areas.

- Map infestations before commencing control to enable the development of a coordinated management strategy
- control plants before the seeds mature
- follow strict hygiene regimes to prevent spread into clean areas
- spray any tussocks that establish on fence lines, fire breaks and roadsides or outside paddocks
- ensure any hay brought into clean areas for fodder or mulch is weed free.

Mission grass control

Chemical control

There are a wide range of products registered for use in the NT that can be used effectively for the management of perennial mission grass in accordance to the land use situation. These products contain active ingredients that include glyphosate, hexazinone, haloxyfop or sethoxydim for example.

Chemical and concentration	Rate	Situation, method and comments
Glyphosate 360 g/L Various trade names and formulations	10 ml / 1L	Seedling or adult (individuals or infestation) Foliar spray - apply when actively growing

Optimum treatment times – Darker colours represent preferred months for foliar treatment											
Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec

Non-chemical control

Hand grubbing, slashing.

Follow-up

It is vital that follow up works are carried out to control seedling recruitment and regrowth after a site has been treated. If left uncontrolled, seedlings and regrowth may develop into a bigger problem than the initial infestation.

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](#).