

Rat's tail grass

Sporobolus species

HABIT	LEAVES & ROOTS	FLOWER	SEED HEAD	SEED
 <p>Giant rat's tail grass grows to 1.7m tall when seeding. American rat's tail grass is shorter, growing to 1m tall.</p>	 <p>Tussocks are distinct and well rooted which makes them difficult to pull out. Leaves 6 - 8mm wide, are noticeably tougher than other grass species.</p>	 <p>Tight spiked flower head, green to purple turning silvery with age.</p>	 <p>Seed heads can range from 25 - 80cm long and the side branches from 3 - 8cm long with a rat's tail appearance.</p>	 <p>Tiny brown seeds to 2mm in length. Sticky when wet.</p>

Rat's tail grass is not a declared weed in the Northern Territory.

The problem

Rat's tail grasses are generally unpalatable and difficult to kill, have high seed production, large seed banks and are drought tolerant. Heavy infestations may increase fire intensity.

Rat's tail grass can cause significant damage to ecosystems by displacing native plant species. Rat's tail grass spreads rapidly, has low nutritive value and is unpalatable to stock. As such it has potential to significantly reduce the carrying capacity of pastoral land and increase production costs. Giant rat's tail grass has already had a significant impact in Queensland and New South Wales where it has replaced valuable grazing grass and infested roadsides.

Giant rat's tail grass (*Sporobolus pyramidalis*) and American rat's tail grass (*S. jaquemontii*) have already established in some parts of the Northern Territory. Both these species are highly adept at spreading. Seed can be set throughout the year but most are produced during the Wet season. Seed production is high with up to 80 000 seeds/m² produced per year. Rat's tail grass seeds are very small and become sticky when wet. Seed can remain viable in soil for up to ten years. A soil seed 'bank' can quickly develop.

Habitat and distribution

Rat's tail grass is native to Africa, the first reported outbreaks in Australia were in Queensland in the early 1960s from contaminated pasture seed imported from Africa. These species have since spread to cover over 200 000 hectares of coastal and sub-coastal regions in Queensland and New South Wales.

Rat's tail grass is often difficult to identify due to the similarity of seeds with some native and other exotic weedy *Sporobolus* species. However the leaves are noticeably tougher than any other species.

Between 1965 and 1988, trial plantations were established in Darwin. Plantations were also established in Queensland and Western Australia. Neem continues to be promoted as a multi purpose plantation species by some advocates. Despite this, a neem industry has not proven viable.

Neem is now spread into savanna areas, particularly favouring creek, river and drainage systems. Populations have established in the Victoria River District, Roper and Gulf districts. Neem remains a common garden plant in Darwin, Katherine and the rural area.

Preventing spread of Rat's tail grass

Rat's tail grass can be spread through the movement of livestock, machinery and vehicles contaminated with seed. New infestations can establish rapidly.

By implementing the following recommendations potential seed spread can be significantly reduced:

- Don't drive machinery or vehicles through rat's tail grass, especially in wet or dewy conditions
- Slash prior to seed production. Don't slash affected areas when they are wet or dewy
- Avoid moving stock and driving through infested paddocks in wet or dewy conditions
- Minimise the creation of bare and disturbed areas
- Maintain a 10 m wide buffer strip along transport corridors which are free of rat's tail grass.

Rat's tail grass control

Chemical control

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
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Non-chemical control

Slashing can trigger seed production in rats tail grass varieties. Slashing can also be a major seed transport mechanism. To stop seed production, rats tail grass would need to be slashed approximately every two weeks before seed matures.

Pasture fires can kill 50% of the seed bank and can encourage the remaining seed to germinate, further depleting seed reserves. However in the absence of an integrated control program fire can encourage the development of dense rat's tail grass infestations.

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 Australian Pesticides and Veterinary Medicines Authority (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](#).