Australian Government
Department of Infrastructure, Transport, Regional Development, Communications and the Arts

Department of Primary Industries and Regional Development
GOVERNMENT OF WESTERN AUSTRALIA



Biosecurity alert: Parthenium weed

Parthenium hysterophorus

Parthenium weed (*Parthenium hysterophorus*) is one of the world's most destructive invasive plant species, threatening biodiversity, food security and human health across numerous countries. The weed is native to Central and South America and has spread to over 40 countries including Australia and Christmas Island. In Western Australia, parthenium weed is a control category (C1) prohibited declared pest under the *Biosecurity and Agriculture Management Act 2007*.

Parthenium weed is a herb that can colonise roadsides, fallow land, and overgrazed pastures where grass cover is poor. It can germinate, grow, mature, and set seed in less than one month and a single plant can produce up to 100,000 seeds.

The weed is incredibly destructive as it can kill other plant species within close proximity and is toxic to livestock. Contact with parthenium weed, particularly its pollen, can cause allergic reactions such as dermatitis, hay fever and asthma in people.

The plant's rapid growth rate and seed production makes it difficult to control when established in an area.

The largest parthenium weed infestations are found in Queensland, with sporadic infestations found in NSW and NT. In Western Australia, parthenium weed has previously been found and eradicated in the Pilbara region and at the Kununurra quarantine yards in the Kimberley region.

Parthenium weed was detected on Christmas Island in 2002 and an eradication program has significantly reduced plant numbers, but vigilance is needed to keep this weed controlled.

Its large and persistent soil seedbank, fast germination rate and ability to undergo dormancy makes it well adapted to tropical environments.

LOOK for this weed

- Parthenium weed stems are erect, much-branched in the upper half, hairy, with lengthwise grooves.
- The weed may eventually reach a height of two metres.
- Leaves are pale green, fern-like in appearance, covered in soft hairs with some hairs containing allergy-causing substances.
- The small white floret flowers are compact like daisy heads, 4–10mm in diameter, which are grouped together in many clusters arising from the stem nodes and all terminating about the same height. Each head contains about 45 florets.
- The seeds are black, 2mm long, flattened with two white spoon-shaped appendages at the apex.
- The weed has a deep tap root with many finely branched feeding roots.



Parthenium weed growing on roadside, Christmas Island



Parthenium weed flower heads



Size of small parthenium weed rosette in comparison to a 50-cent coin

Parthenium weed characteristics

- Fast-maturing annual (or, under certain conditions, a short-lived perennial) with a deep tap root and an erect stem that becomes woody with age.
- Produces up to 100,000 seeds per plant, which are easily spread by people, animals, wind, water and machinery.
- Seeds close to the soil surface germinate readily.
- Buried seeds can remain dormant and viable for germination for up to 10 years.
- The weed can release chemicals that inhibit the germination and growth of pasture grasses and other plants.
- Can cause allergic reactions in people.



Mature parthenium weed



Parthenium weed has fern-like leaves

What can you do?

- Know what the plant looks like, and report suspect sightings.
- Prevent an allergic reaction by avoiding contact with the weed or breathing in pollen from flowering plants.
- If using herbicide always read the label first and follow all instructions and safety requirements.
- If removing weeds, wear lightweight, long-sleeved garments and cotton gloves to avoid contact with the skin.
- If you choose to control this weed, physical removal is only appropriate for small infestations.
- Pull out the plants before they flower, making sure to remove the entire root system to avoid regrowth from root remnants.
- The use of machinery to remove this weed is not advised due to the likely potential spread of seeds to unaffected areas.
- Wash down with water any vehicles or machinery that may have travelled through parthenium infested areas.

REPORT this weed

Given the favourable environmental conditions for its germination on Christmas Island, every effort is needed to ensure parthenium weed is located, identified and reported before it sets seed.

If you find a Parthenium weed, take a photo, record its location, and report.

Report your observations

MyPestGuide® Reporter
via app or online
mypestguide.agric.wa.gov.au

Pest and Disease Information Service
(08) 9368 3080
padis@dpird.wa.gov.au

Parks Australia - Christmas Island
Phone (08) 9164 8700 | Fax (08) 9164 8755
Email christmasislandnp@dcceew.gov.au

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